



# ANNUAL WATER QUALITY REPORT

*Water testing performed in 2003*



PWS ID#: GA0670005

## Continuing Our Commitment

Once again we proudly present our annual water quality report. This edition covers all testing completed from January through December 2003. Marietta Water is committed to providing consumers with high quality water and excellent service. We have developed this report to inform and educate our consumers about the quality of the drinking water distributed in our community. When reading this report, you will find that Marietta Water delivers water to you that exceeds federal drinking water standards established by the U.S. EPA. Marietta Water is pleased to announce that last year's report received a Certificate of Achievement in the Georgia Water and Pollution Control Association Consumer Confidence Report contest for large surface water systems.



For more information about this report, or for any questions relating to your drinking water, please call Tim Marshall, Environmental Compliance Coordinator, at (770) 794-5229.

## Working Hard For You

Marietta Water is a division of the Marietta Board of Lights and Water. Within our service boundary, we supply water to approximately 60,000 people. There are 40 full-time employees within our department, which are on call in order to provide 24 hour a day emergency service every day of the year. Marietta Water strives to use the latest technologies to more effectively serve our community. Since the beginning, Marietta Water's goal has been to provide the safest and highest quality drinking water for all its customers. We are proud of our history of quality service. To maintain our commitment to you, analysts routinely collect and test water samples every step of the way - from the source waters right to your home - checking purity and identifying potential problems. Through foresight and planning, efficiency in operations, and focus on excellence in customer service, we will provide you the best quality drinking water at an economical price well into the 21st century.

## Community Participation

Marietta Water operates under the supervision of the Board of Lights and Water. This board consists of seven representatives who establish policy for Marietta Water. You can make an appointment to voice comments or concerns to the board on water related issues by calling the Board Manager at (770) 794-5109. The board meets the Monday before the second Wednesday of each month. Marietta Water maintains regular operating hours of Monday through Friday, 7:00 a.m. to 4:00 p.m. To reach the service and maintenance department, please call (770) 794-5230.



## Special Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791.

## Where Does Our Water Come From?

**M**arietta Water purchases water from the Cobb County-Marietta Water Authority (CCMWA), a public utility founded in 1951. The CCMWA treatment facilities are supplied from two separate surface water sources. The James E. Quarles Treatment Facility, built in 1953, withdraws water from the Chattahoochee River. The Quarles Plant currently treats about 64 million gallons of water a day. Most of this water is distributed and utilized on the eastern side of Cobb County and Marietta. The Hugh A. Wyckoff Treatment Facility, built in 1963, withdraws water from Lake Allatoona. Lake Allatoona is fed by the Etowah River which is part of the Coosa River Basin. The Wyckoff Plant currently treats about 72 million gallons of water a day. Most of its water is distributed and utilized on the north and west side of Cobb County and Marietta. Both of these treatment facilities are in the process of expansion to meet the growing needs of our community. You can do your part to conserve water by following the current statewide pre-drought restrictions:



- Odd-numbered addresses may water only on Tuesdays, Thursdays and Sundays (no hourly limits).
- Even-numbered or unnumbered addresses may water only on Mondays, Wednesdays and Saturdays (no hourly limits).

## Source Water Assessment

**D**uring 2002, the Cobb County-Marietta Water Authority and the Atlanta Regional Commission completed a Source Water Assessment itemizing potential sources of water pollution to our surface drinking water supplies. This information can help you understand the potential for contamination of your drinking water supplies and can be used to prioritize the need for protecting drinking water sources.

A Source Water Assessment is a study and report which provides the following information: identifies

the area of land that contributes the raw water used for drinking water; identifies potential sources of contamination to drinking water supplies; and provides an understanding of the drinking water supply's susceptibility to contamination.

Individual source pollution involves actual facilities, which have contaminants on site, which can pose a potential health risk if humans consume those contaminants. Non-point source pollution is caused by development and everyday activities that take place in residential, commercial and rural areas and is carried by rainfall to streams and lakes. After evaluating these sources of pollution, the report found the Chattahoochee overall watershed susceptibility ranking to be high and the Lake Allatoona overall watershed susceptibility ranking to be medium.

For more information on this project, visit the Source Water Assessment Web site at <http://www.atlantaregional.com/swap/> or you can request information by mail from the ARC: Attn: Matthew Harper, Environmental Planning Division, Atlanta Regional Commission, 40 Courtland Street, NE, Atlanta, GA 30303.



## Concerning Lead in Drinking Water

**L**ead is a naturally occurring element in our environment. Consequently, our water supply is expected to contain small, undetectable amounts of lead. However, most of the lead in household water usually comes from the plumbing in your own home, not from the local water supply. Infants and young children are typically more vulnerable to lead in drinking water than the general population.

We maintain our drinking water supply at an optimum pH and mineral content level to help prevent corrosion in your home's pipes. To reduce lead levels in your drinking water, you should flush your cold-water pipes by running the water until it becomes as cold as it will get (anywhere from 5 seconds to 2 minutes or longer) and use only water from the cold-water tap for drinking, cooking, and especially for making baby formula. Hot water is likely to contain higher levels of lead.

For more information, please contact the National Lead Information Center at (800) LEAD-FYI and the Safe Drinking Water Hotline at (800) 426-4791.



## Substances That Might Be in Drinking Water

**T**o ensure that tap water is safe to drink, the U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it can acquire naturally occurring minerals, in some cases, radioactive material; and can pick up substances resulting from the presence of animals or from human activity. Substances that may be present in source water include:



**Microbial Contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, or wildlife;

**Inorganic Contaminants**, such as salts and metals, which can be naturally occurring or may result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;

**Pesticides and Herbicides**, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses;

**Organic Chemical Contaminants**, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and may also come from gas stations, urban stormwater runoff, and septic systems;

**Radioactive Contaminants**, which can be naturally occurring or may be the result of oil and gas production and mining activities.

For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.



## Sampling Results

During the past year, we have taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic or synthetic organic contaminants. The table below shows only those contaminants that were detected in the water. Although all of the substances listed here are under the Maximum Contaminant Level (MCL) set by the U.S. EPA, we feel it is important that you know exactly what was detected and how much of the substance was present in the water.

REGULATED SUBSTANCES							
SUBSTANCE (UNITS)	YEAR SAMPLED	MCL (MRDL)	MCLG (MRDLG)	AMOUNT DETECTED	RANGE (LOW-HIGH)	VIOLATION	TYPICAL SOURCE
Chlorine (ppm)	2003	(4)	(4)	1.89	0.01-1.89	No	Water additive used to control microbes
Chlorite (ppm)	2003	1.0	0.8	0.40	ND-0.4	No	By-product of drinking water disinfection
Fluoride (ppm)	2003	4	4	1.14	0.72-1.14	No	Erosion of natural deposits; Water additive which promotes strong teeth
Nitrate (ppm)	2003	10	10	0.54	ND-0.54	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Haloacetic Acids [HAAs] (ppb)	2003	60	0	41.1	7.3-96.7	No	By-products of drinking water disinfection
TTHMs [Total Trihalomethanes] (ppb)	2003	80	0	58.0	20.1-105.5	No	By-products of drinking water disinfection
Total Coliforms (% positive samples)	2003	5% positive samples	0	1.4	NA	No	Naturally present in the environment
Total Organic Carbon (ppm)	2003	TT	NA	2.0	1.5-2.0	No	Decay of organic matter in the water withdrawn from sources such as lakes and streams
Turbidity (NTU) <sup>1</sup>	2003	TT=5 NTU	0	0.37	ND-0.37	No	Soil runoff

### Tap water samples were collected for lead and copper analyses from 50 homes throughout the service area

SUBSTANCE (UNITS)	YEAR SAMPLED	ACTION LEVEL	MCLG	AMOUNT DETECTED (90 <sup>TH</sup> %TILE)	HOMES ABOVE ACTION LEVEL	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2003	1.3	0	0.04	0	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead (ppb)	2003	15	0	2.6	1	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives

<sup>1</sup> Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. During the reporting year, 100% of all samples taken to measure turbidity met water quality standards.



## ***Cryptosporidium* in Drinking Water**

The Cobb County-Marietta Water Authority participated in a major drinking water quality testing program called the Supplemental Information Collection Rule (SICR). Two of the contaminants tested for under this rule are the parasites *Cryptosporidium* and *Giardia*, which have caused outbreaks of intestinal disease in the United States and abroad. These parasites are common in surface water and are very difficult to kill. Even a well-run water system may contain some live oocysts (in the case of *Cryptosporidium*) or cysts (in the case of *Giardia*). The U.S. Environmental Protection Agency (U.S. EPA) is working to resolve several scientific issues that will allow it to set *Cryptosporidium* and *Giardia* safety standards. Our 1999 and 2003 testing performed at the raw (untreated) water intake on the Chattahoochee River, located immediately north of the Johnson Ferry Road crossing, revealed the presence of *Cryptosporidium* and/or *Giardia* in several months' samples. These organisms were detected in the water prior to treatment. During 1999 and 2003, the water at Lake Allatoona was also tested. No oocysts or cysts were detected. During 2000, the Water Authority participated in another study, sponsored by the American Water Works Association, analyzing for these parasites. This study was conducted at the Lake Allatoona raw water intake, supplying the Wyckoff Treatment Plant. No *Cryptosporidium* or *Giardia* was detected in this study. Our treatment technique is designed and optimized to remove these contaminants. Therefore, no additional precautions about our drinking water are currently required.

## **Table Definitions**

**AL (Action Level):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

**MCL (Maximum Contaminant Level):** The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

**MCLG (Maximum Contaminant Level Goal):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

**MRDL (Maximum Residual Disinfectant Level):** The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

**MRDLG (Maximum Residual Disinfectant Level Goal):** The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

**NA:** Not applicable

**ND:** Not detected

**NTU (Nephelometric Turbidity Units):** Measurement of the clarity, or turbidity, of water.

**ppb (parts per billion):** One part substance per billion parts water (or micrograms per liter).

**ppm (parts per million):** One part substance per million parts water (or milligrams per liter).

**TT (Treatment Technique):** A required process intended to reduce the level of a contaminant in drinking water.